

## **Effect of Knowledge toward the Behaviour of Gold Miners Environmentally Sound: A Case Study in Bombana Regency**

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### **ABSTRACT**

Gold is a mineral pursued by miners around the world. Wherever there is potential sounding gold by miners, then they instantly met by traditional gold miners either from outside, inside or around the mine area. With the discovery of gold deposits in Bombay, it invites much traditional gold miners to do mining there. The more traditional miners, then affect on environmental damage are more quickly. In order to minimize damage from traditional miners, it required an examination of the miners, particularly how the level of environmental knowledge miners toward the behaviour of environmental management at the mine location. The results showed that although the level of education of the miners is low, but their experience and behaviour towards environmental management are quite high. It is caused by the presence of other factors that they have such as experience, media or info, mature age, social, and culture.

**Keywords:** Education, Resources, Environment preservation.

### **INTRODUCTION**

Gold is a highly prospective mining product from an economic standpoint, because

the selling value of gold continues to rise over time, besides gold also can easily be traded anywhere. It has attracted the interest of many people to catch up or get gold even to remote villages to mountains and rivers to get gold.

A phenomenon occurs. Some people who work as farmers, construction workers, fishermen and various other types of community work are interested in mining life. They leave their job for being traditional gold miners, while they do not have the experience.

Almost all the conditions in the Indonesian mining sites are not much different from what happened in other mine-producing countries, in the world. There have been many highlights of the mine management carried out by non-governmental agencies and community organizations, both those in the field of environmental and another institution concerned about the condition of the real damage in the field. However, these exploration activities are still ongoing. Siti Maimunah [1] states that large-scale mining has given rise to many problems. They are not only for the society but also for the country.

Some mining locations spread in Indonesia have shown evidence of damage to the environment. They are at a gold mine in Paboya Central Sulawesi, Gunung Pongkor Malasari village Jawa West Java, National Park Bogani Wani Wartabone di North Sulawesi and Gorontalo, Regency of Lebong Bengkulu Province, Tahite River, Bombana Regency.

Based on the facts of the traditional community management of mine above, it appears that the living conditions of the people in the gold-mining region are alarming. From a safety aspect, there is no guarantee of security toward traditional gold-mining community, either for the fellow miners or natural disasters that will occur in the field. From an economic aspect, there is no guarantee of increased significant prosperity. They are more prosperity than they were still living as farmers or other businesses before switching professions. From the aspect of health, they are very susceptible to disease because every day they get along with dangerous goods in the form of mercury. In addition, there are diseases caused by promiscuous society in the form the Human Immunodeficiency Virus (HIV). From the aspect of education, there are no education subsidies at all at the location of the mine processing community, either by local governments or private parties.

Based on the background mentioned above, the impact of environmental experience in managing and conserving the environment on the behaviour of miners in Bombana need to be studied. Therefore, the purpose of this study was to analyze the influence of environmental experience toward the behaviour of traditional miners environmentally sound Bombana Regency.

#### **A. ENVIRONMENTAL MANAGEMENT AND POLICY CONTEXT**

The law in the Indonesian Environmental Policy contained in the Constitution 45, Article 33 states that:

1. Earth, water and natural resources controlled by the state and used for the greatest welfare of the society.
2. National Economy is organized based on economic democracy with the principles of togetherness, efficiency of justice, environmentally sustainable,



self-reliance and balancing economic progress and national unity. (Article 33, paragraph 4 of Law Number 45)

Further elaboration of the Constitution 45 described In Law No. LH. 32 in 2009, states that:

The government set up and carries out protection of natural resources, namely air, soil, water, coastal and marine, biodiversity, rural, urban, social environment so that they do not suffer on damage or pollution.

The policy context is also embodied in the Medium Term Development Ministry of Environment in 2009, which is stated:

1. Local Government Capacity for Conducting Environmental Civil Procedure.
2. Empowerment of Civil Society
3. Arrangement of Institutional Resources.
4. Arrangement of Non-Institutional Sources.
5. Preservation of Natural Environment.
6. Institutional Development.
7. Communication and Information Systems Development

## **B. KNOWLEDGE AND BEHAVIOR CONTEXT**

### **1. Knowledge Context**

According to Notoatmodjo 2007 [4], information is the result of knowing, and it occurs after the conducting of the particular object sensing. Constructivists approach suggests that knowledge is not the fact of the reality being studied, but it is as cognitive construction of the object, experience, or the environment. Knowledge is not something that already exists, while people just accept it. Knowledge is a continuous formation by someone who is reorganized at any time due to new understandings.

The factors that affect the above information can be described as follows:

#### **a. Education**

Education is an attempt to develop a personality and ability on the inside and outside of school, and it lasts a lifetime. Education affects the learning process. The higher the education of someone, the easier it is for the person in receiving the information. With higher education owned, a person will tend to get the information, either from other people or mass media. The more information, the more knowledge can be gain. Knowledge is closely related to the education as expected that a person who has a higher education will be more knowledgeable. However, it should be emphasized that a low education does not mean that a person has a low knowledgeable absolutely. Increased information can be obtained not only from formal education, but also non-formal education. A person's information about an object also contains two aspects, namely positive and negative aspect. Both these features will determine a person's attitude toward a particular object.

#### **b. Information or Mass Media**

The information obtained from both formal and non-formal education can provide an

immediate impact so that it produces a change or an increase in information. Advances in technology will be available for a variety of mass media. It can affect a person's experience of innovations. Methods of communication, various forms of mass media such as television, radio, newspapers, and magazines have a major influence on the formation of opinion and belief. In the delivery of information as the main task, the mass media conveys messages also containing suggestions that can lead a person's opinion. New information about something provides the foundation for the formation of new cognitive science to it.

#### **c. Socio-Cultural and Economic**

People realize customs and traditions without reasoning whether it is well or poor. Thus, knowledge of a person will grow even though he did not do anything. A person's economic status will also determine the availability of the necessary facilities for particular activities. Therefore, socioeconomic status affects the data.

#### **d. Environment**

The environment is everything around the individual, either physical environmental, biological, or social. Environment affects the process of entry into the experience of individuals in the environment. It is due to the mutual interaction that will be responded as information by everyone.

#### **e. Experience**

Experience as a source of information is a way to obtain the knowledge of the truth by repeating the obtained experience in solving problems facing in the past. Learning experience in the work that is developed provides information and professional skills. It is also going to be able to develop the competence to take decisions, which are manifestations of integrating scientific and ethical reasoning that departed from the real problems in the field of business.

#### **f. Age**

Age affects the perception and mindset of a person. Increasing age resulted in growing perception and thought patterns. Thus, the experience gained is getting better. At middle age, individuals will be actively involved in community and social life. They are also more likely to make preparations for the success of efforts to adapt to the old age. Besides, the middle age will be more likely to use much time to read. Intellectual skill, problem solving, and verbal skills are reported almost no decline at this age.

Knowledge of Aquinas holds that humans are believed to be looking at the ratio of information about objects. Against these objects, reasons gain experience through the senses, as far as the five senses can see, and know. It means that a sensory perception of the objects will create a source of data. Instead, all objects that cannot be sensed are known by the reasons.

Thomas Aquinas, philosophy and renowned Theologian, suggests two ways in acquiring information. The first is reasons of human culminating in God. The second is faith. It is the acceptance of God's revelation. In this sense, the truth of God must be



accepted by faith. With faith, knowledge of the truth and the source of information has no existence of the source of truth itself. It is the ideas of God as far as it enters the human mind with the divine illumination. Aquinas by Thomas is the Lord's. The introduction of knowledge of the material world or the world of objects is an aspect of information, and recognition gained for the reasons. It means that the human mind can acquire knowledge through their identification with the objects and phenomena that seem to reveal the reality faced. By itself, the mind can know objects or phenomena through the objects that are growing or moving. It means that all the things that seem general can be seen by the five senses through concrete facts, real earnest and appear in particular matters.

## **2. Behaviour Context**

On the concept of behaviour, there is a perception of society. The resulting perception is an experience through the senses of sight, hearing, and smell. The motivation defined as the impetus to act to achieve a set goal. Results of encouragement and this movement demonstrated in the form of behaviour.

Walgito (1991), states that the effect on the behaviour of individuals or organisms does not occur by itself. However, it is as a result of the stimulus received by an organism in question, either for external or internal stimulus.

Behaviour is observable, either directly such as laugh, drink or indirectly such as thoughts and feelings. People's behaviour formed from the environment in which they live. This behaviour lasted quite long. It could be the same behaviour occurs handed down from generation to generation in the community. It could be a local culture of a society.

There are some understandings of behaviour described as follows:

From the point of living, behavioral or activity is an activity of the organism in question, which can be seen directly or indirectly. Behavior is an activity or activities of organisms (living things) concerned. Therefore, from the biological point of all living things start to grow - plants, animals up to human behavior, because they have their activity - each.

Operationally, the response can be interpreted as an organism or a person's response to stimuli from outside the subject (Soekidjo, 1993).

American Encyclopedia, the action, is defined as an action-reaction as an organism to its environment. The new behavior occurs when there is something that is needed to cause a response, namely the so-called stimulus. It means set stimuli will produce reactions or specific behaviors (Notoatmodjo, 1997).

Robert Kwick (1974), the behavior is the effect of an organism that can be seen and can even be studied.

General, human behavior is essentially a process of interaction of a person with his environment as a living manifestation of that he is a living creature (Kusmiyati & Desminiarni, 1990).

Leonard F. Polhaupessyi. In a book entitled "Human Behavior, " the performance is a movement that can be seen from the outside, such as people walking, riding bikes, and riding a motorcycle or a car. For this activity, they must do something, for

example, that one should put a foot on the other leg. Obviously, this is a behavior. This story of one facet. If about a man sitting quietly with a book in his hand, he is said to be behaving. He was reading. Although the observation from the outside is very minimal, the actual performance of the body is behind the curtain, in the human body.

Skinner (1938) a psychologist, theorized that the behavior of a person's response or reaction to a stimulus (external stimuli). Because of this, behavior occurs through the process of stimulus to the organism, and the organism then responds, Skinner's theory is called the theory of "SOR" or Stimulus - Organism - Response.

Behavior or activity is of human action itself, which has a very wide expanse include: walking, talking, crying, laughing, working, college, writing, reading, and others. From this description, it can be concluded that the meanings of human behavior are all human activity or activities, either directly observed, and, which cannot be seen by outsiders (Notoatmodjo, 2003).

### ***Forms of Behavior.***

Judging from the body of the response to this stimulus, the response can be divided into two (Notoatmodjo, 2003):

#### **a. Behavior closed (convert behavior).**

Behavior is cover person's response to a stimulus in the form of veiled or covered (convert). Response or response to this stimulus is limited to attention, understanding, knowledge, awareness, and attitudes that occur in people who received the stimulus, and it cannot clearly seen by others.

#### **b. Overt behavior**

Overt action is a person's response to a stimulus in the form of real action or open. The response to a stimulus is already evident in the form of the action or practice (practice), which can easily be observed or seen by others.

### ***Type Behavior***

#### **Reflexive Behavior**

Reflexive behavior is behavior that occurs over the spontaneous response to the stimulus on the organism. For example, eye blinking light when hit; knee motion when in contact with the touch of a hammer; interesting hands when touching the fire and forth. Reflexive behavior occurs by itself, automatically. Stimulus received by the organism does not get to the central nervous system or the brain as the center of consciousness that controls human behavior. In a reflexive response, arising as a direct response to receiving the stimulus. In other words, once the stimulus received by a receptor, as a direct response to look through actor, without going through the center of consciousness or brain. This behavior cannot control basically. It is because the reflexive behavior is a natural behavior, not the behavior that is shaped by the person concerned.



### **Non-Reflexive Behavior**

Non-reflexive behavior is behavior that is controlled or regulated by the central consciousness / brain. In this regard, after the stimulus is received by receptors directly transmitted to the brain as the nerve center, the center of consciousness, and then going through effectors response.

Processes that occur in the brain or central consciousness is called emotional processes. Behavior or activity on the basis of a psychological process is called psychological or behavioral psychological activity, according to Branca (1964).

In the context of the theory of behaviorism behavior to be analyzed is the behavior of visible, which can be measured, described, and predicted. Behavior the theory is know as the theory of learning, because all human behavior is the result of learning. Learning means to change the behavior of the organism as the result of the environment. Behaviorism did not want to question whether humans' good or bad, rational or emotional, behaviorism just wants to know how behavior is control by environmental factors.

Looking at the person as being reactive to respond to the environment. So maintenance experience will shape their behavior. From it merge the concept of "human machine" (Homo Mechanicus). The hallmark of theory was the emphasis elements in a small part, mechanistic, emphasizing the role of the environment, concerned with the formation of reaction or response, emphasizing the importance of exercise, concerned with the mechanisms of learning outcomes, concerned with the role of ability and learning results obtained.

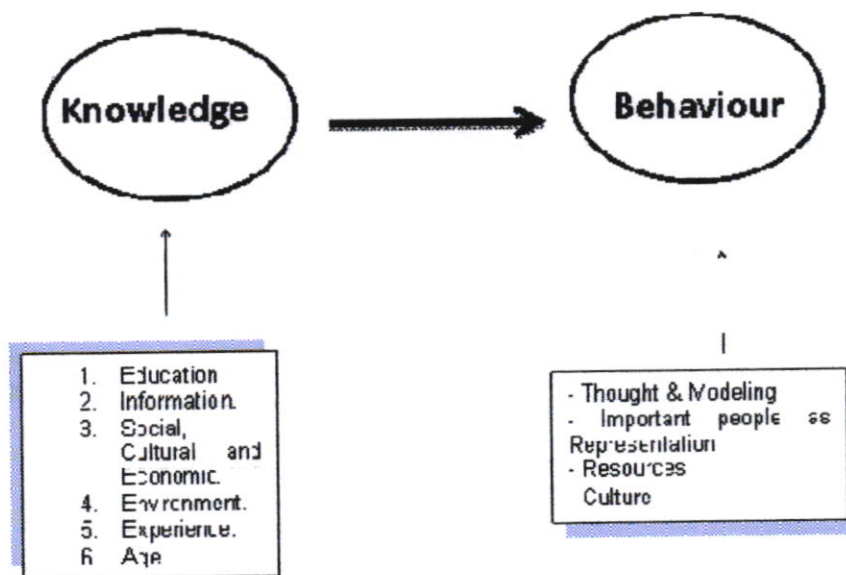
The author argues that Notoatmodjo 2007 (4) has very accurately reflected the science in his book. If a look at the opinion of Mubarak, there is an extra little less agree with the author because of the element of interest is also at odds with the view that believes Aquanis toward objects.

In this study, the research variables, there are the opinions of the research Yustina (2006) which suggested a link to increased knowledge of environmental samples is done, even according to him increased knowledge of environmental impact on attitudes and interests. According to Khiyarotum Niswah and Noveri Aisyaroh that behavior based on the experience of the more lasting than the behavior that is not based on data. Notoatmodjo, 2003 state that if the acceptance of new behavior or adoption behavior through a process like this, where the underlying by the knowledge, awareness and a positive attitude, then it would be lasting performance, otherwise if the performance based on experience and information will not last long.

### **C. RESEARCH FRAMEWORK**

Starting from anthropocentric theory, which holds that all natural resources can exploit for the benefit of the widest human, and then the human psyche that tends to meet their needs and seek would do all sorts of ways to maintain and meet the physiological needs. The needs will increase after the wants secure sense of self and the environment then the next level. Humans want to interact with their neighbors and then in social communication must appear self-esteem maintained at all costs and that the peak of the needs of one's self is the self-actuality, thus Maslow, 1987.

In a meeting, the needs of humans exploit natural resources in support of industrial factory made with the support of essential materials such as minerals, either in the form of minerals and rocks and oil, others.... However excessive exploration and support adequate environmental management science and then the complex was found to negatively impact exploration in the form of damage to the environment as well as the social tempest in strata of society in the mine area. To answer the research questions about how education influences, attitudes, motivation to behavior of traditional gold-mining community in managing the environment it is necessary to do more research on it.



**Figure 1. Research Framework**

#### **D. RESEARCH HYPOTHESIS**

In initial allegations against the research hypothesis that will be implemented is a significant influence on the behavior of the variable knowledge of gold-mining activities of traditional communities in environmentally Bombana.

#### **E. METHODS**

This research is survey research using a quantitative correlation. In this research study, question is a group study that takes information from traditional gold-mining community. Information collected in the form of primary data is data related to study variables using instruments such as questionnaires. This study, it takes about 8 (eight) months to study the field and data processing. The area took place in primary and secondary data Bombana; Southeast Sulawesi is mine management area includes Sungai Tahi Ite, PT. Panca Logam Nusantara, PT. SUN, PT. Bahana Sultra Mas, PT. Panca Logam Makmur.



In taking the data in this study, used much data collection, both primary and secondary data were carried out with the procedure, as follows: test, questionnaire method / questionnaire, observation and documentation.

In this study group of 1, 700 people taken is around the existing mine manager at Bombana. Random sampling at each site of gold with total samples of 215.

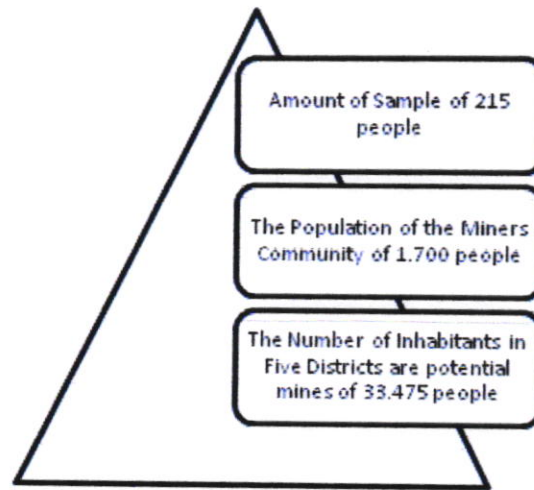
## **F. DISCUSSION AND RESULTS**

### **Description Location Research.**

Bombana is one of the districts are located or to be part of Tenggara Sulawesi province, with the Capital Rumbia, Established Under Law No. 29 of 2003 dated December 18, 2003 which are the result of the expansion of Buton Regency. BOMBANA known as a region inhabited by the tribe 'Moronene' as a native, one of the largest ethnic groups in Southeast Sulawesi, mythologized as the Goddess of State Rice (Dewi Sri). It is state that the goddess ever down in a place later called Tau Bonto (currently known as Taubonto writing, the capital of the District Rarowatu). In English Moronene, 'know Bonto' it means the decay, when it the Goddess of Rice was down at the venue, the production of paddy fields so that residents overwhelmed abundant harvest. As a result, much rice left behind and rot in the fields. In fact, the open area of the field is not much, only a few hectares for each family. Taubonto becomes the center of government in times of power mokole, Moronene title of king in the city in the past. In the post-independence period Buton independent governments, territories mokole turn into the next area and the district is now a district. Historically, the area Moronene in mainland Southeast Sulawesi peninsula covers most of the District Watubangga in Kolaka now. However, the incoming administration Buton area (at that time) only the District and the District Rumbia Poleang, when it has developed into four districts. Two additional districts as a result of the division is East and Rarowatu Poleang. Subdistrict Rarowatu Taubonto centered. Kabaena Island also includes Moronene area, a native of the island because the brown sugar it is Moronene tribe. However, governments in Kabaena Mokole independent, there is no structural relationships and an affiliative relationship with Mokole power in the mainland, but the familial relationships between people mokole and very closely particularly distinctive language and culture. Mokole in Kabaena power under the control of the Sultanate of Buton, as well as other mokole large mainland peninsulas in Southeast Sulawesi. Buton Sultan palace in Kabaena puts an officer who holds Lakina Kobaena. Because it is structurally closer to Kabaena Buton, although so are culturally closer to strategic industries, related to culture and language, and ras.

### **Description of Research Results.**

Here is a picture of how many populations and samples taken at the location of the miners as well as the description of the people of the districts that have the potential mines in Bombana.

**Figure 2. Population and Research Sample****Gender**

The data from table 1 above shows that for the categories of gender, the percentage of male gender of 99.1% (213 respondents out of a total of 215 respondents), during the percentage for female of 0.9% (2 respondents out of a total of 215 respondents). Thus, the majority of the respondents in this study were male.

**Table 1. Frequency Distribution of the Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Validity	Male	213	99.1	99.1	99.1
	Female	2	.9	.9	100.0
	Total	215	100.0	100.0	

Source Result of the Process Data, 2013

**Respondents Status**

Data from table 2 above shows that the status category of respondents in this study, the percentage of respondents who had married status of 82.3% (177 respondents out of a total of 215 respondents), whereas the status of single respondents amounted to 17.7% (38 respondents from a total of 215 respondents). Thus, the majority of the respondents in this study have remained married.

**Table 2. Frequency Distribution Status Of Respondents**

		Frequency	Percent	Valid Percent	Cumulative Percent
Validity	Married	177	82.3	82.3	82.3
	Single	38	17.7	17.7	100.0
	Total	215	100.0	100.0	

Source Result of the Process Data, 2013



### Member of the Families

Table 3 shows that the number of family members for the category of respondents in this study, the percentage of respondents who did not have family members of 10.2% (22 respondents out of a total of 215 respondents). The percentage of respondents who have one person family members of 15.3% (33 respondents from a total of 215 respondents). The percentage of respondents who have two person family member of 33% (71 respondents from a total of 215 respondents). The percentage of respondents who had three family members amounted to 26% (56 respondents out of a total of 215 respondents). The percentage of respondents who had four family members of 13% (28 respondents from a total of 215 respondents) and the percentage of respondents who have five person family members of 2.3% (five respondents out of a total of 215 respondents). Thus, the majority of the respondents in the study who had a family member are three people.

**Table 3. Frequency Distribution of Family Members**

		Frequency	Percent	Valid Percent	Cumulative Percent
Validity	0.00 people	22	10.2	10.2	10.2
	1.00 people	33	15.3	15.3	25.6
	2.00 people	71	33.0	33.0	58.6
	3.00 people	56	26.0	26.0	84.7
	4.00 people	28	13.0	13.0	97.7
	5.00 people	5	2.3	2.3	100.0
	Total	215	100.0	100.0	

Source of Data Processed, 2013

### The Last Education

Data of table 4 above shows that, for category educational level of respondents in the study, the percentage of respondents that no school of 7% (15 respondents out of a total of 215 respondents). The percentage of respondents who attended at the elementary school of 41.4% (89 respondents from a total of 215 respondents). The percentage of respondents who attended school at the junior secondary level of 36.7% (79 respondents out of a total of 215 respondents). The percentage of respondents who attended school at the senior secondary level of 14.9% (32 respondents out of a total of 215 respondents) and percentage respondents educated through the university does not exist in this research. Thus, the majority of the educational level of respondents in this study was senior secondary school.

**Table 4 Frequency Distribution of the Last Education**

		Frequency	Percent	Valid Percent	Cumulative Percent
Validity	No School	15	7.0	7.0	7.0
	Elementary School	89	41.4	41.4	48.4
	Junior Secondary School	79	36.7	36.7	85.1
	Senior Secondary School	32	14.9	14.9	100.0
	University	0	0	0	100.0
	Total	215	100.0	100.0	

Source Result of the Process Data, 2013

**Incomes (per month)**

The data from table 5 above indicates that for monthly income of respondents in this study, the percentage of monthly income of respondents below Rp. 1, 000, 000.- amounted to 9.8% (21 respondents out of a total of 215 respondents), the percentage of monthly income respondents.-Rp. 1.000.000, -until Rp. 2, 000, 000.-amounted to 62.3% (134 respondents from a total of 215 respondents), the percentage of respondents to the monthly income of Rp. 2, 000, 000.-up to Rp. 3, 000, 000.- amounting to 23.7% (51 respondents from a total of 215 respondents), the percentage of respondents to the monthly income of Rp. 3, 000, 000.-until Rp 4.000.000, - amounting to 4.2% (9 respondents from a total of 215 respondents) and for the percentage of monthly income of respondents over Rp 4.000.000.-amounting to 0% (no monthly income respondents who reached over Rp 4.000.000.-). Thus the majority of the monthly income of respondents in this study is at Rp. 1, 000, 000.- until Rp. 2, 000, 000..

**Table 5. Frequency Distribution of Incomes**

		Frequency	Percent	Valid Percent	Cumulative Percent
Validity	Below Rp. 1.000.000, -	21	9.8	9.8	9.8
	Rp. 1.000.000, - until Rp. 2.000.000, -	134	62.3	62.3	72.1
	Rp. 2.000.000, - until Rp. 3.000.000, -	51	23.7	23.7	95.8
	Rp. 3.000.000, - until Rp. 4.000.000, -	9	4.2	4.2	100.0
	Over Rp. 4.000.000, -	0	0	0	100.0
Total		215	100.0	100.0	

Source Result of the Process Data, 2013

**Environmental Awareness**

From table 6 above, the data show that, for the category of traditional environmental knowledge of miners in this study, the percentage of respondents to a low level of knowledge of 31.2% (67 respondents out of a total of 215 respondents). The percentage of respondents to rate data of 33% (71 respondents from a total of 215 respondents), the percentage of respondents to a high level of experience of 35.8% (77 respondents out of a total of 215 respondents).

**Table 6. Frequency Distribution of Environmental Awareness**

		Frequency	Percent	Valid Percent	Cumulative Percent
Validity	Low	67	31.2	31.2	31.2
	Medium	71	33.0	33.0	64.2
	High	77	35.8	35.8	100.0
	Total	215	100.0	100.0	

Source Result of the Process Data, 2013



### Behavior of the Miners in the Administer of the Environment

Data from table 7 above shows that the categories of performance for traditional miners in maintaining an environment in this study, the percentage of respondents for the level of behaviour never did of 24.7% (53 respondents out of a total of 215 respondents); the percentage of respondents to rate the performance rarely done of 20% (43 respondents out of a total of 215 respondents); the percentage of respondents to rate the performance often amounted of 25.6% (55 respondents out of a total of 215 respondents) and the percentage of respondents to rate the performance always do of 29.8% (64 respondents out of 215 total respondents).

**Table 7. Miners' Behaviour**

		Frequency	Percent	Valid Percent	Cumulative Percent
Validity	Never	53	24.7	24.7	24.7
	Rare	43	20.0	20.0	44.7
	Often	55	25.6	25.6	70.2
	Always	64	29.8	29.8	100.0
	Total	215	100.0	100.0	

Source: Result of the Process Data, 2013

### 3. The Results of the Statistical Analysis of the Variables of Knowledge

From table 8 above, effective contribution to the experience part of the constituent variables comprising education of 71.9%, media info of 64, 3%, social-cultural-economy of 61, 6%, environment of 47, 5%, experience of 51.3%, and age of 69, 0%. In other words, education can explain the information part of 71.9%; media info capable of describing the information part amounted of 64.3%, social-cultural-economy was able to describe the factors of information. The conditions was capable of 61, 6% describe the experience part amounted of 47, 5%, able to describe the experience part information of 51.3%, and the age of the information part was able to explain 69, 0%]

**Table 8. Variable Indicator of Knowledge Support**

	Innitials	Extraction
Education	1.000	.719
Media Info	1.000	.643
Sos-Cultural-Eco	1.000	.616
Environment	1.000	.475
Experince	1.000	.513
Age	1.000	.690

Extraction Method: Principal Component Analysis.

Source Result of the Process Data, 2013

#### 4. The Result of the Statistical Analysis of Variable Behaviour

From table 9 above, the effective contribution of the variable behaviour of the constituent variables consisting of attention and demonstration of 19.3%, an important organization of 57, 1%, resources of 69.4% and cultural amounted of 28.3%. In other words, attention and demonstration were able to describe the variable behavior amounted of 19.3%. The organization was able to describe important behavioral variables of 57, 1%. Resources were able to explain the variable of behaviour of 69.4%, and the variable behavior was able to explain the culture amounted to 28.3%.

**Table 9. Indicators of the Variable Behaviour Support**

	Initial	Extraction
Consideration and Demonstration	1.000	.193
Important Organization	1.000	.571
Resources	1.000	.694
Cultural	1.000	.283

Extraction Method: Principal Component Analysis.

Source Result of the Process Data, 2013

#### 5. Relationship between Variable of Knowledge and Behaviour

Based on the variable results of the study of the variable of behavior acquired information with the magnitude of the effect of knowledge of the performance is 0.187 with Critical Ratio (CR) of 2.934 and probability (p) of 0.003. Because the value of CR  $1.96 >$  and p value  $< 0.05$ , so it can explain that there was a significant direct impact on knowledge of behavior. The magnitude of the direct experience of the power coefficient behavior is marked positive of 0.376. It indicates the power of knowledge of behavior is positive. That is the better the experience then, the better behavior.

#### CONCLUSION

From the results of the analysis of research data, variable experience of miners obtained a positive relationship to the traditional miners' performance variables. The higher of information, the better of miners' action in administering maintain and preserve the surrounding environment in particular gold mining district, in the Regency Bombana. Education is an indicator that contributed to the highest for variable of information and resources of the highest contributing towards environmental management action insightful environment.

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